TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 26, 2014

Mr. Brian Mueller (6SF-AP)
U.S. Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, TX 75202

Re: Falcon Refinery Federal Superfund Site, Ingleside, Texas
Comments to Barge Dock Facility Closure Report
SUP111

Dr. Mr. Mueller;

The Texas Commission on Environmental Quality (TCEQ) has completed review of the proposed Barge Dock Facility Closure Report dated December 30, 2013 and has the following comments.

Section 3.4 AOC-4 Current Barge Dock Facility
This section states that potentially affected media included soil and groundwater at the Current Barge Dock Facility.

TCEQ Comment: Is there any sampling data for the Historical Barge Dock area as indicated on Figure 2? Will this be addressed as part of AOC-5?

Section 3.5 AOC-5 Redfish Bay
This section states that "the analytical data from this AOC were not performed due to significant quantity of barge and industrial traffic in the intercoastal waterway."

TCEQ Comment: The Contaminants of Potential Concern (COPCs) in the sediments at this AOC will need to be analyzed to determine the extent of contamination for this area in order to be able to select the appropriate remedial action.

Section 7.0 Conclusions and Recommendations
The first bullet states that 'The sole reason for including the barge dock facility into the superfund site is ownership of the property.'

TCEQ Comment: The TCEQ disagrees that the barge dock was included solely due to ownership. The barge dock facility was an integral part of the site's activities in order to ship the

different materials via barges to various destinations, and is still currently being used. Please revise this statement.

In addition to the comments above, please note the attached TCEQ IOM from Vicki Reat regarding Ecological Risk Assessment issues.

If you have any questions, please contact me at (512)239-1054.

Sincerely,

Phillip Winsor, P.E., Project Manager
Superfund Section, Team 1
Remediation Division
TCEQ
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TCEQ Interoffice Memorandum

To: Phillip Winsor, Project Manager, Superfund Section, Remediation Division

From: Vickie Reat, Technical Program Support Team, Division Support Section, Remediation Division

Date: February 24, 2014

Subject: Barge Dock Facility (AOC-4) Closure Report
Falcon Refinery Superfund Site
Ingleside, Texas
Prepared for Lazarus Texas Refining I, LLC by TRC
December 30, 2013

I have reviewed the subject document as requested. My review comments, from an ecological risk assessment (ERA) perspective, are outlined in this memo.

Overall Comment

1. The discussion in Section 3.4 states that the current barge dock facility is about 0.5 acres in size. Additionally, the aerial photographs (Figures 5 and 6) reveal that the site is fairly disturbed. This suggests that there is likely no significant ecological habitat present for soil exposure pathways. In fact, under the TCEQ ERA program, the site itself would pass the soil exposure portion of the Tier 1 Exclusion Criteria Checklist (see §350.77(b) of the TRRP rule)[1]. Since this is a federal superfund site, soil exposure pathways were evaluated as though they are complete and significant. The site condition - from the aspect of ecological exposure pathways for soil - should be factored into the risk management decisions.

Specific Comments

2. 3.4 AOC-4 Current Barge Docking Facility - The discussion states that there have been no known spills or releases, and that there are no visible indications of environmental impacts at the Barge Dock Facility. It is not clear if this discussion is limited to the soil only portion of the Barge Dock Facility or if it also includes possible releases or spills to the adjacent Redfish Bay/Intracoastal Waterway (AOC-5) during loading and unloading operations. The discussion also states that the potentially affected media included soil and groundwater. As it does not appear to be included in this submittal, any historical releases to Redfish Bay/Intracoastal Waterway should be addressed in the Remedial Investigation/Baseline Ecological Risk Assessment for the remainder of the Falcon Refinery Superfund Site.

[1] The TRRP rule is available at the following link: http://www.tceq.state.tx.us/rules/indxpdf.html#350.

Re: Barge Dock Facility (AOC-4) Closure Report; Falcon Refinery Superfund Site

3. 3.5 AOC-5 Redfish Bay - Related to the previous comment, this discussion states that the sediments and surface water adjacent to the current and former barge dock facility are included in this AOC. It is further stated that any detections of chemicals of potential concern (COPCs) in the sediment or surface water in this AOC could be the result of numerous entities that are located on the waterway or that transport materials on the waterway. This seems to indicate that for the future, Lazarus Texas Refining I does not intend to evaluate this AOC due to suspected releases from multiple sources. This is not acceptable. Future Remedial Investigation/Baseline Ecological Risk Assessment submittals should address potential risks associated with the release of COPCs within this AOC. Concerns over non-site related releases from barge and industrial traffic in the Intracoastal Waterway can be addressed with a background sediment evaluation.

4. 6.2 Selection of Chemicals of Potential Concern - There is a statement on page 9 that seven chemicals were detected above the risk-based and ecological screening levels (i.e., benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, mercury, and zinc) and that these seven chemicals were retained as COPCs and will be evaluated further in the screening level ecological risk evaluation. Additionally, the following chemicals were detected at least once in soil: 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; acenapthylene; acetone; acetophenone; anthracene; benzaldehyde; benzene; benzo(f)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; bis(2-ethylhexyl)phthalate; carbon disulfide; chrysene; di-n-octylphthalate; ethyl benzene; fluoranthene; isopropyl benzene; m,p-xylene; methylene chloride; napthalene; o-xylene; phenanthrene; trichloro-fluoromethane; and xylenes, total.

   These chemicals do not have ecological benchmarks. If screening benchmarks are not available and are not proposed, then these soil constituents would normally be evaluated further. Notably, all detections appear to be less than 1 mg/kg. Nevertheless this remains a data gap/uncertainty issue for this report. Also note that TCEQ Guidance does provide soil benchmark screening values for high and low molecular weight PAHs as a group (see Table 3.4 of referenced guidance)[2]. See Overall Comment 1 also.

5. 6.2 Selection of Chemicals of Potential Concern - The discussion states that the natural[ly] occurring metals in the soil at the site detected at concentrations consistent with "background" conditions were not further evaluated, and that metals that exceed the Texas Specific Median Background concentrations (TCEQ,

[2] See Table 3.4 of TCEQ, 2014.Available at: http://www.tceq.texas.gov/assets/public/remediation/trrp/rg263-draft.pdf

2013) were retained as COPCs (as presented in Table 2). For metals, Table 2 only provided summary data for mercury and zinc. Copper, lead, and nickel in soil also exceeded background thresholds. All of these metals are considered to be bioaccumulative chemicals of concern in soil[3]. Therefore they would normally be evaluated for potential risks to wildlife regardless of any benchmark comparison. See Overall Comment 1 also.

6. 6.7 Ecological Soil Evaluation - The discussion indicates that the ecological soil evaluation compared the exposure point concentrations to earthworm and plant ecological benchmarks (Table 9) and that mercury and zinc are the only two COPCs that exceed ecological benchmarks (earthworm and plant). This is true. However, there are multiple COPCs where there was no evaluation since there was no TCEQ benchmark for comparison. See previous comment 4. Additionally, as discussed in comment 5, other bioaccumulative metals (copper, lead, and nickel) would normally be evaluated for potential risks to wildlife regardless of any benchmark comparison.

7. 7.0 Conclusions and Recommendations - The discussion states that mercury and zinc are the only two COPCs in soil that exceed ecological benchmarks. The discussion continues that they are not COPCs associated with activities at the barge dock facility and are likely metals naturally occurring in native soil at the site. See previous comments 4 and 5 and Overall Comment 1.

   Section 2.3 states that the current barge dock facility "was previously used to load and unload crude oil and refined hydrocarbons via pipelines that connect the dock facility to the North and South Sites" and that "currently only crude oil is transferred at the Site." There is no basis for the statement that mercury and zinc are not COPCs associated with activities at the dock facility. Additionally, mercury and zinc in soil are present above Texas median background concentrations (§350.51(m))[4]. As there have been a number of assessments already performed for this superfund site, there may be site-specific soil background data to support the statement that these are naturally occurring levels of metals.

8. 7.0 Conclusions and Recommendations - There is a statement that "the barge dock facility is located approximately one mile from any portion of the former refinery." Based on our rough estimation, the southwest corner of the barge dock facility appears to be about 0.4 miles from the northeast corner of the South Refinery site. Please revise the text.

[3] See Table 3.1 of TCEQ, 2014. Link provided with footnote 2.
[4] See footnote 1 for the link for the TRRP rule.